

We claim:

1. A composition comprising a molecule that specifically binds an extracellular portion of the latent viral membrane bound protein of a virus expressed in the latent life cycle, wherein the molecule binds the cell by binding one or more of the expressed DNA virus proteins, wherein the molecule is coupled to a detectable label, cytotoxic agent or solid support.
2. The composition of claim 1 wherein the virus is a herpes virus.
3. The composition of claim 1 wherein the herpes virus is the Epstein-Barr virus.
4. The composition of claim 3 wherein the expressed Epstein-Barr virus protein or fragment thereof is selected from the group consisting of LMP-1, LMP-2A, LMP-2B, LP peptides presented in HLA, and EBNA peptides presented in HLA.
5. The composition of claim 2 wherein the expressed Epstein-Barr virus protein is selected from the group consisting of the LMP-2A or LMP-2B proteins.
6. The composition of claim 5 wherein the molecule binds the portion of LMP-2A from amino acids 259 to 497 or of LMP-2B from amino acids 140 to 378, both of SEQ ID NO: 1.
7. The composition of claim 1 wherein the molecule is an antibody.
8. The composition of claim 1 wherein the molecule is a peptide.
9. The composition of claim 1 wherein the molecule is a chemical.
10. A vaccine for alleviating or preventing an infection with a herpes virus comprising
an extracellular component of the herpes virus expressed in a cell when the virus is in a latent state in a pharmaceutically acceptable carrier for administration of the virus or viral component in an amount and mode of administration effective to alleviate or prevent the infection.
11. The vaccine of claim 10 wherein the herpes virus is the Epstein-Barr virus.

12. The vaccine of claim 11 wherein the component of Epstein-Barr virus is selected from the group consisting of LMP-1, LMP-2A, LMP-2B, LP peptides presented in HLA, and EBNA peptides presented in HLA.
13. The vaccine of claim 10 in a pharmaceutical carrier for administration by injection, by ingestion, by inhalation, by cutaneous administration, or by ocular administration.
14. A method for preventing or alleviating infection by a herpes virus comprising
vaccinating or administering to an individual
a component of the herpes virus expressed during latency in a pharmaceutically acceptable carrier for administration of the virus or viral component in an amount and mode of time of administration effective to alleviate or prevent the viral infection.
15. A method for preventing or alleviating infection by an Epstein-Barr virus comprising
vaccinating or administering to an individual
an extracellular component of the Epstein-Barr virus expressed during latency in a pharmaceutically acceptable carrier for administration of the virus or viral component in an amount and mode of administration effective to alleviate or prevent the infection.
16. The method of claim 15 wherein the component of the Epstein-Barr virus is selected from the group consisting of LMP-1, LMP-2A, LMP-2B, LP peptides presented in HLA, and EBNA peptides presented in HLA.
17. The method of claim 15 wherein the component of the Epstein-Barr virus is LMP-2A or LMP-2B.
18. The method of claim 14 wherein the molecule binds the portion of LMP-2A from amino acids 259 to 497 or of LMP-2B from amino acids 140 to 378, both of SEQ ID NO: 1.
19. The method of claim 15 where the component of the Epstein-Barr virus is expressed in the plasma membrane of a host cell.

20. The method of claim 15 wherein the individual has symptoms of or is at risk of developing an autoimmune disorder selected from the group consisting of systemic lupus erythematosus, Sjogren's syndrome, rheumatoid arthritis, juvenile onset diabetes mellitus, Wegener's granulomatosis, inflammatory bowel disease, polymyositis, dermatomyositis, multiple endocrine failure, Schmidt's syndrome, autoimmune uveitis, Addison's disease, adrenalitis, primary biliary cirrhosis, Graves' disease, thyroiditis, Hashimoto's thyroiditis, autoimmune thyroid disease, pernicious anemia, lupoid hepatitis, demyelating diseases, multiple sclerosis, subacute cutaneous lupus erythematosus, hypoparathyroidism, Dressler's syndrome, myasthenia gravis, autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura, hemolytic anemia, autoimmune hemolytic anemia, pemphigus vulgaris, pemphigus, bullous pemphigoid, dermatitis herpetiformis, alopecia areata, autoimmune cystitis, pemphigoid, scleroderma, progressive systemic sclerosis, CREST syndrome (calcinosis, Raynaud's esophageal dysmotility, sclerodactyly, and telangiectasia), adult onset diabetes mellitus (Type II diabetes), male or female autoimmune infertility, ankylosing spondylitis, ulcerative colitis, Crohn's disease, mixed connective tissue disease, polyarteritis nodosa, systemic necrotizing vasculitis, juvenile onset rheumatoid arthritis, glomerulonephritis, atopic dermatitis, atopic rhinitis, Goodpasture's syndrome, Chagas' disease, sarcoidosis, rheumatic fever, asthma, recurrent abortion, anti-phospholipid syndrome, farmer's lung, erythema multiforme, postcardotomy syndrome, Cushing's syndrome, autoimmune chronic active hepatitis, bird-fancier's lung, allergic encephalomyelitis, toxic necrodermal lysis, alopecia, Alport's syndrome, alveolitis, allergic alveolitis, fibrosing alveolitis, interstitial lung disease, erythema nodosum, pyoderma gangrenosum, transfusion reaction, chronic fatigue syndrome, fibromyalgia, Takayasu's arteritis, Kawasaki's disease, polymyalgia rheumatica, temporal arteritis, giant cell arteritis, Sampter's syndrome (triaditis also called, nasal polyps, eosinophilia, and asthma), Behcet's disease, Caplan's syndrome, dengue, encephalomyositis, endocarditis, myocarditis, endomyocardial fibrosis, endophthalmitis, erythema elevatum et

diutinum, psoriasis, erythroblastosis fetalis, fascitis with eosinophilia, Shulman's syndrome, Felty's syndrome, filariasis, cyclitis, chronic cyclitis, heterochromic cyclitis, Fuch's cyclitis, IgA nephropathy, Henoch-Schonlein purpura, glomerulonephritis, cardiomyopathy, post vaccination syndromes, Hodgkin's and non-Hodgkin's lymphoma, renal cell carcinoma, Eaton-Lambert syndrome, relapsing polychondritis, thrombotic thrombocytopenic purpura.

21. The method of claim 15 wherein the vaccine is administered prior to infection with Epstein-Barr virus.
22. The method of claim 15 wherein the vaccine is administered to an individual who has or has previously had an infection with Epstein-Barr virus.
23. The method of claim 20 wherein the autoimmune disorder is systemic lupus erythematosus.
24. The method of claim 20 wherein the autoimmune disorder is Sjogren's syndrome.
25. The method of claim 20 wherein the autoimmune disorder is mixed connective tissue disease.
26. The method of claim 20 wherein the autoimmune disorder is rheumatoid arthritis.
27. The method of claim 20 wherein the autoimmune disorder is Hodgkins' disease.
28. The method of claim 20 wherein the autoimmune disorder is nasopharyngeal carcinoma.
29. The method of claim 20 wherein the autoimmune disorder is multiple myeloma.
30. The method of claim 20 wherein the autoimmune disorder is lymphoma of a category associated with EBV infection.
31. The method of claim 15 wherein the host is infected with the human immunodeficiency virus.
32. The method of claim 15 wherein the host has an immunodeficiency.

33. A method for identifying individuals who have been infected with a virus comprising detecting the presence of a viral protein expressed during the latent stage of the viral life cycle using the compositions of claim 1.
34. The method of claim 33 wherein the virus is a DNA virus.
35. The method of claim 34 wherein the virus is Epstein-Barr virus.
36. The method of claim 33 wherein the composition is an antibody.
37. A method for separating or destroying latently infected cells ex vivo.
38. The method of claim 37 where the cells are infected with Epstein-Barr virus.
39. The method of claim 37 where the latently infected cells are in a transfusion.
40. The method of claim 37 where the latently infected cells are in a bone marrow transplant.
41. The method of claim 37 where the latently infected cells are in a solid organ transplant of which examples include kidney, heart, lung, liver, pancreas, cornea, bowel, esophagus, spleen, etc. or parts thereof.
42. The method of claim 37 where the method involves an antibody binding to latently infected cells.
43. The method of claim 37 where the method involves a chemical binding to latently infected cells.
44. The method of claim 37 where the method involves a peptide binding to latently infected cells.